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Symphysiotomy
A Successful Case A Suggestion

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SYMPHYSIOTOMY.

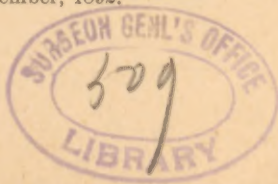
A SUCCESSFUL CASE. A SUGGESTION.

THE ancient history of symphysiotomy need not be rewritten. It is interesting in that it presents the reverse of what usually happens with new ideas in science. Its invention was hailed as a great advance in science, and laudation and honors were showered on the inventor. After a short reign the verdict was reversed. Harvey, Jenner, Wolff, Lister were regarded as dangerous innovators, but fought their way into universal recognition. Sigault was received with open arms by the profession, and after a short reign his operation fell into such disrepute that his very name was execrated by Baudelocque. One cannot wonder that, with bad pelvimetry, imperfect knowledge of pelvic deformities, and the sepsis which characterized all the surgery of the eighteenth century, the operation could not hold its own. From 1777 to 1804 there were forty operations; fifteen women and twenty-eight children died. The results of the second forty were about the same.¹ From 1858 to 1865 there are no recorded operations.¹ The paper of Dr. R. P. Harris read before the last meeting of the American Gynecological Society, and published in *THE AMERICAN JOURNAL OF OBSTETRICS*, October, 1892, leaves little to be said in regard to the modern history of the operation. Up to this time the attention of American obstetricians seems not to have been attracted to the revival which had been spreading in Europe since 1865. Dr. Harris' table, showing forty-four operations from January, 1886, to July, 1892, by various operators, with one maternal death, three still-born children, and two children dying respectively at twelve and seventy-two hours, made a profound impression on the American profession. I will not detain you by repeating details, but refer you to Dr. Harris' original paper and to the interesting one of Prof. Hirst, of the University of Pennsylvania.² Dr. Charles Jewett, of Brooklyn, was the first American operator. He operated on September 30th, 1892, under the following circumstances:³ Healthy, robust primipara, age 22. In labor at 1 A.M. Head at vulva at 10.

¹ Harris.

² *Medical News*, October 15th, 1892.

³ *New York Jour. of Gyn. and Obstet.*, November, 1892.



Forceps impossible. Bischiatic diameter about three inches. Antiseptic symphysiotomy. Head shelled out by fingers in rectum. Child died in twenty-four hours from effect of long-continued pressure. Recovery uneventful to date of writing. Fetal head: occipito-mental, $6\frac{1}{2}$ inches; occipito-frontal, $5\frac{1}{2}$ inches; biparietal, $3\frac{1}{2}$ inches; circumference, $13\frac{1}{2}$ inches.

Dr. Hirst operated October 2d, 1892.¹ Primipara, 19 years of age. Pelvic measurements: spinæ ilii, 25 centimetres; cristæ ilii, 27 centimetres; bitrochanteric, $30\frac{1}{2}$ centimetres; conjugata externa 18 centimetres, interna $9\frac{1}{2}$ centimetres; conjugata vera, $7\frac{3}{4}$ centimetres. Antiseptic symphysiotomy. Forceps. Child lived. Head: bitemporal, $7\frac{1}{2}$ centimetres; biparietal, 9 centimetres; occipito-frontal, 12 centimetres; occipito-mental, $13\frac{1}{2}$ centimetres; circumference, 34 centimetres. Mother recovered fully.

Dr. Broomall operated October 7th, 1892. I am indebted to Dr. Anna M. Fullerton, of the Philadelphia Woman's Hospital, for the following account of the case: "Mrs. P., æt. 30, colored, multipara. Height, four feet eight inches; number of previous births, seven. Pelvic measurements: Distance between spines of the ilium, 23 centimetres; distance between crests of the ilium, 24 centimetres; conjugata externa, 19 centimetres; conjugata vera, $8\frac{1}{4}$ centimetres (probably less). A generally contracted, rachitic pelvis. Marks of rachitis in curvature of bones of skeleton generally, etc. Abdomen markedly pendulous. Child-bearing history: Early labors easy, increasing difficulty in later labors. The last labor, one of breech presentation, was very difficult; child lost. Present labor began with premature rupture of membranes at 2 P.M. October 6th, 1892. No dilatation of os; head of child presenting and movable above pelvic brim. Labor continued, with active uterine contractions, for twenty-four hours. Dilatation progressed somewhat slowly; the os, however, became dilatable. Head still perfectly movable above inlet; no attempt at engagement. Fetal heart slowed; sounds muffled. Mother showed signs of exhaustion in increased rapidity of pulse and rise of temperature (pulse 140, temperature 99.8°), frequent vomiting, etc. Inertia of uterus set in. Symphysiotomy was done October 7th, about twenty-four hours after onset of labor, after thorough antiseptic preparations. Galbiati's sickle-shaped knife was employed. Upon separation of the symphy-

¹ Medical News, October 15th, 1892.

sis the pubic bones sprang apart between four and five centimetres. The fetal head descended at once into the pelvis. The tissues being soft, sufficient dilatation was obtained by manual assistance for the application of forceps, and the child was delivered in about ten minutes without difficulty. (It cried lustily shortly after it was born, there being no asphyxia.) Wound closed with silk sutures and dressed antiseptically. Adhesive strips and a stout muslin bandage were used for fixation of the pelvis. The lying-in was without event. The temperature and pulse remained normal from within a short time after delivery. Patient not permitted to walk until beginning of fifth week. Locomotion perfect; union complete. Measurements of child's head: occipito-mental, $13\frac{1}{2}$ centimetres; occipito-frontal, 12 centimetres; biparietal, $9\frac{1}{2}$ centimetres; bitemporal, $8\frac{1}{2}$ centimetres. Head well ossified; sutures close; fontanelles small. Weight of child, 2,780 grammes; length of child, 45 centimetres; sex, female. Mother and child in excellent condition up to date."

I operated at the Free Lying-in Hospital of the University of Maryland on October 25th, 1892. The patient was a rachitic negress, four feet six inches high, 17 years old. Pelvic measurements: spinæ ilii, $8\frac{1}{4}$ inches; cristæ ilii, $7\frac{3}{4}$ inches; bitrochanteric, $9\frac{1}{2}$ inches; conjugata externa, 6 inches; conjugata vera, $2\frac{3}{4}$ inches. Labor began in the morning of the 24th and continued during the day. The waters broke during the afternoon. I saw the patient at 9 P.M. Os barely admitted two fingers; head large and no signs of engagement; both fetal and maternal circulation good; general condition of patient satisfactory. Concluded to wait for greater dilatation, and determined to operate next morning. Ordered pubes shaved and other preparations for the operation to be made. Operated at 9:30 A.M. Chloroform anesthesia. Os still small, but most of the amniotic fluid had escaped, and the fetus was suffering from pressure, as evinced by pulse, which was becoming more rapid and irregular. The fetal head was obviously large and there was no possibility of engagement. I first dilated the os uteri until four fingers would enter, having first evacuated the bladder. I then incised the soft tissues down to the symphysis, and separated the attachments of the recti for half an inch on each side. Passing my finger down behind the symphysis until it projected below, I (not then possessing the Galbiati knife) tried to follow it with a large

curved, grooved director. The projecting belly prevented this. I then incised the soft parts from the outside below, down to my finger tips, and tried to pass the director from below upward, but without success. Finally, using the director as a guide for the lower part of the symphysis, and my finger for the upper, I passed an ordinary curved, probe-pointed bistoury behind the joint and severed the cartilage. The separation, when the incision was first made, was about one-half or three-quarters of an inch. Applying Simpson's modifications of Tarnier's forceps above the brim, I delivered slowly, dilatation being very imperfect. The pelvis was supported firmly at the sides during delivery. The child was easily extracted. I was amazed at the pubic separation. I paused when it was at its highest point and found it two and seven-eighth inches. The child was alive, and I passed it over to my assistant, Dr. K. B. Batchelor. Upon inspection I found that, notwithstanding my caution, I had lacerated the cervix into the vaginal vault, the perineum to the verge of the anus, and the anterior vaginal wall into the operation wound. These lacerations were at once repaired with catgut, save the anterior vaginal wall, which was so close to the urethra that it was deemed wise to leave it. The wound of the symphysis was sewed with gut, the deeper stitches including the anterior and superior pubic ligament. The wound was completely sutured, no drainage being used. The surface was powdered with aristol and dressed with iodoform gauze. Broad adhesive strips encircled the pelvis and were covered by a firmly applied bandage. The woman was in a fair condition after the operation, but was a little slow in recovering from the anesthesia. The catheter was used always when she desired to urinate. The puerperium was uneventful. On the evening of the second day temperature 101° ; afterward, for ten days, the evening temperature was about 100° , the morning about 99° . Little or no complaint of pain at wound. No complaint referred to sacro-iliac joints. Pain and local tenderness at right knee, probably from position in which it was held during the operation. Appetite good and general condition excellent during the whole puerperium. Catheterization was done aseptically by the house physician, and no vesical irritation followed. Bowels moved on the fourth day by enema. On the ninth day the patient, being able to handle herself well, was allowed to sit up in bed, which she did easily without aid. On the eleventh day she sat up a little

while in a chair. On the twelfth day she could walk well and firmly; movement was, however, discouraged. There was no trouble at all except a little slowness in healing of the anterior vaginal wound. Within a month the patient walked up and down stairs, and at the present time walks all over the hospital, and walks as firmly as before the operation.

The child died on the third day, the death being due to pressure which had occurred previous to the delivery. The death was due doubtless to the fact that the operation was postponed for the night. There was some meningeal hemorrhage, some superficial extravasation of blood. There was a clot at the base of the skull and extravasation in the spinal canal in the dorsal region. The lungs were filled with hemorrhagic infarctions. The head of the child measured: occipito-mental, $5\frac{3}{4}$ inches; occipito-frontal, $4\frac{1}{8}$ inches; suboccipito-bregmatic, $4\frac{3}{8}$ inches; biparietal, 4 inches; bitemporal, 3 inches.

I show to you here the Galbiati knife, which I have procured since the operation. Dr. Hirst attempted to do the operation with an ordinary bistoury, but afterward abandoned it for the Galbiati knife, which aided him very much in the operation and of which he speaks very highly. I think one can only appreciate the importance of this instrument if he has attempted to do the operation without it. I am quite convinced, in the light of the experience which I had in this operation, that this knife would have been a very great aid.

It seems to me that the revival of symphysiotomy is one of the greatest advances in recent times; it strikes at the point where we found the greatest weakness. Every conscientious obstetrician aims to do everything possible to avoid craniotomy upon the living child, and it is just in these cases, where the true conjugate comes above two and one-half inches, that we have to elect between craniotomy, Cesarean section, and symphysiotomy. The results of the Cesarean section in modern times are particularly brilliant, considering the amount of danger incurred. But under the most favorable circumstances there is an amount of mortality which is very grave, and which would naturally make one hesitate to risk the life of the mother for the sake of saving that of the child. I am fully convinced that a great many people who very earnestly and enthusiastically advocate Cesarean section as the elective operation, would be very loath to have the same operation performed on persons of

their own connection when the alternative presented itself in that form. The use of symphysiotomy strikes at this point—cases which come under the head of Cesarean section with relative indication. When one reflects that in the forty-four cases recorded by Dr. Harris in his paper there is only one maternal death, and that seems to have been in a woman whose condition at the time of operation was practically septic and might have ended fatally under any circumstances, the saving of maternal lives is certainly a point that would attract the attention and the approval of everybody interested in the subject of obstetrics. Naturally the great point in its success in modern times, as compared with its early history, is the antiseptic precautions.

In reflecting over the operation an idea occurred to me, which is the suggestion I have to make. The aim of obstetricians to prevent the operation of craniotomy on the living child is applied mainly to the cases which we have already considered. But there are certain other cases in which this operation becomes more imperative even than it does in contracted pelves. These are cases in which, from a bad presentation of the head, delivery becomes impossible at a stage in which it would be equally impossible to do a Cesarean section. These cases are represented by face presentation, posterior chin. If the chin can be made to rotate to the front by any device, thus transforming it into an anterior face presentation, delivery is not particularly difficult; but where the chin fails to rotate to the front, and where the devices ordinarily employed are unsuccessful, I think it has heretofore been thought best to follow out the views of Penrose and many others—that the performance of craniotomy should be carried out at once. When there is a fixed and jammed posterior chin there is no sense in waiting. It seems to me that the operation of symphysiotomy could be applied to just such a class of cases, whether the chin or occiput was posterior and the delivery impossible. It seems to me that we could thereby relieve the woman of danger and deliver alive the child, which we would otherwise have to kill.

I have examined this matter with the fetal head and pelvis as ordinarily used in obstetrical instruction, and which I bring now before you. Here is a head which is in a position of face presentation, chin posterior, and it is seen that delivery in this position is impossible. If you can rotate it, well and good; but you simply cannot do it except in a very small number of cases.

You cannot do a Cesarean section on account of the position of the head, but you can do a symphysiotomy; and if the symphysiotomy is done, you can get enough room to rotate the occipito-mental diameter and produce flexion of the head, and with such flexion you bring the occiput down to the pubic arch, and at that point, of course, the direction of the mother's forces is changed and you have a delivery of the occiput in the ordinary way. I think this is perfectly feasible, and is demonstrated with the pelvic bones and fetal head in place.

In order to still further verify the matter (and I think we should always, so far as possible, deal with dead subjects before we proceed to work upon the living person) I took a fetus of large size, and a pelvis, with the soft parts attached, of comparatively small size. The proportions of the fetus and of the woman were such that without a considerable lubrication and preparation it was impossible to introduce the head in the pelvis in any of the so-called normal positions. But with lubrication we were enabled to produce the usual movements of delivery in the normal way, the head filling up the pelvis completely. Having demonstrated in that way the comparative size of pelvis and of fetal head, we then introduced the fetal head into the pelvis, produced a posterior rotation of the chin, and put on forceps and attempted to deliver, and found it utterly impossible. I then performed symphysiotomy, and I was really astounded at the ease with which, after the pubic bones had separated one and a half inches (estimated), we could, by pressing over the symphysis, produce a descent of the occiput; or, in other words, produce flexion of the head upon the trunk, and bring the occiput under the pubic arch, and deliver by extension in the usual way. The experiment on the cadaver in this way was so much like the experiment on the living child and woman that I was convinced, at the end of the experiment, that the operation was perfectly feasible. Whether this will come into practice or not it remains for the future to show; but, so far as I am individually concerned, I shall certainly make this attempt on the first case presenting. If this does succeed, it seems to me that it will very nearly take away the last peg of support from craniotomy on the living child, either for bad presentation or deformity. I hope this will result in the diminution of fetal mortality which follows bad presentation.

In a case where the occiput is posterior, and where the deliv-

ery of the child with forceps is accompanied by a great amount of violence which frequently results in the injury and death of the child, this operation may be indicated.

Statistics are remarkable both as to the safety of the woman and the healing of the wound. The woman is subjected to very little risk. The number of operations which have been performed during the present year the world over I present in a communication which Dr. Harris was good enough to send me last week. There have been twenty-six operations in all. Six of these are by Italian operators, eleven by French, four by German, one by Austrian, and four by American operators; the one which I have the pleasure to report being the last of the list. In this list there are no deaths of the mother. In the American cases, the child in Dr. Jewett's case died in twenty-four hours from the results of pressure, and in my own case the same result occurred at the end of the third day. In both of these cases, had the operation been more promptly performed, both children would doubtless be living. Both children were born alive, and the fatality was not due in the least degree to the operation. The amount of violence done to the fetus is a great deal less than in an ordinarily difficult forceps case, because the points of resistance are removed.

I append Dr. Harris' list of operations in 1892 up to date:¹

CASES OF 1892, AS SENT TO ME THUS FAR:

Morisani, Naples	3	} I., 6.
Novi, Naples.....	1	
Caruso, Naples	1	
Truzzi, Novara.....	1	
Pinard, Paris.....	8	} F., 11.
Porak, Paris.....	2	
Tarnier, Paris.....	1	
Leopold, Dresden....	2	} G., 4.
Freund, Strassburg.....	1	
Zweifel, Leipzig.....	1	
Velits, Pressburg, Austria.....	1	A., 1.
Jewett, Brooklyn.....	1	} U. S., 4.
Hirst, Philadelphia.....	1	
Broomall, Philadelphia.....	1	
Michael, Baltimore.....	1	

26

15 operators, 5 countries, no death.

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¹ Since the receipt of this paper successful operations have been done in America by Springle, of Montreal (Mont. Med. Jour., January, 1893), child also recovering, and by Garrigues, of New York (unpublished). A fatal case (unpublished) has also occurred in New York in the hands of a very skilled operator.—ED.

